

Amendment and Response

Applicant: Shai Lior

Serial No.: 10/573,767

Filed: April 12, 2006

Docket No.: 200310120-3

Title: INK HEATING ON BLANKET BY CONTACT OF A ROTATING HOT SURFACE

IN THE CLAIMS

Please cancel claims 4, 5, 12, 13, 15, 16, and 18 without prejudice.

Please add claims 19-26.

Please amend claims 1, 2, 6, 7, 8, 10, 11, 14, and 17 as follows:

1. (Currently Amended) A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said toner image on said intermediate transfer member, and heating the toner image by the heated member prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the toner image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member.

wherein the heated member comprises a belt supported by at least two spaced wheels with a segment of the belt supported and extended between the spaced wheels providing surface contact with the intermediate transfer member.

2. (Currently Amended) A method according to claim 1 and including; including:

moving the surface of the heated member together with the moving surface of the intermediate transfer member, so that the surface of the heated member surface comes into contact with the surface of the intermediate transfer member surface.

3. (Original) A method according to claim 2 and including:

removing the surface of the heated member from contact with the intermediate transfer member.

4. (Cancelled)

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5. (Cancelled)

6. (Currently Amended) A method according to claim 1 and including removing excess carrier liquid from the toner image prior to [[its]] transfer of the toner image to the intermediate transfer member.

7. (Currently Amended) A method according to claim 1 A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein said heated member supplies at least 50% of the heat for heating the toner of the image on said intermediate transfer member.

8. (Currently Amended) A method according to claim 1 A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein said heated member supplies at least 70% of the heat for heating the toner of the image on said intermediate transfer member.

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9. (Original) A method according to claim 1 wherein the internal heater is a radiant heater that heats the intermediate transfer member by heat radiated and air conducted from the heater.

10. (Currently Amended) ~~A method according to claim 1~~ A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and
placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member, and

including transferring the heated image from the intermediate transfer member wherein heating the toner image to a temperature suitable for transfer to a final substrate uses less than 50% of the energy necessary to heat said toner to said suitable temperature by a heater internal to the intermediate transfer member alone.

11. (Currently Amended) A method according to claim 1 wherein the toner image is transferred from the intermediate transfer member, under pressure.

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) A system for heating a toner image for printing on a print media comprising:

an intermediate transfer member, adapted to receive an image at a first position and to transfer the received image at a second position; and

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a heating member contacting said image and said intermediate transfer member and heating the image as [[it]] said intermediate transfer member passes between said first and second positions,

wherein heating of the image by the contacting heated heating member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein the heating member comprises a heated moving belt supported by at least two spaced wheels, wherein a segment of the belt supported and extended between the spaced wheels provides surface contact with the intermediate transfer member.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) A system according to claim 14 and including means for removing excess carrier liquid from the image prior to [[its]] transfer of the image to the intermediate transfer member.

18. (Cancelled)

19. (New) A method according to claim 1 wherein the belt of the heated member is heated by at least one heating unit positioned in at least one of the at least two spaced wheels.

20. (New) A method according to claim 1 wherein the belt of the heated member is heated by at least one heating unit positioned in a void covered by the belt.

21. (New) A method according to claim 1 wherein the belt of the heated member is selectively heated in a region of the belt providing surface contact with the intermediate transfer member.

22. (New) A method according to claim 1 wherein the belt of the heated member is supported by three triangularly-spaced wheels.

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23. (New) A system according to claim 14 wherein the heating member further comprises at least one heating unit positioned in at least one of the at least two spaced wheels.

24. (New) A system according to claim 14 wherein the heating member further comprises at least one heating unit positioned in a void covered by the belt.

25. (New) A system according to claim 20 wherein the at least one heating unit is positioned in the void covered by the belt adjacent a region of the belt providing surface contact with the intermediate transfer member.

26. (New) A system according to claim 14 wherein the at least two spaced wheels of the heating member comprise three triangularly-spaced wheels.